

REMARKS

Claims 1 and 10 are amended to more particularly point out that the actuator motor in Applicants' brake assembly is electric and includes a stator, as taught throughout the specification, including at page 6, lines 9-11. The claims are also amended to recite that the assembly comprises a heat pipe that is connected to the stator for dissipating heat generated by the electric motor during operation, see page 5, beginning at line 25. The remaining claims have been amended to refer to a heat pipe, consistent with the antecedent in amended claims 1 and 10.

Claim Rejections based in whole or in part upon Deane et al.

Claims 1, 8-10, and 13 were rejected under 35 U.S.C. § 102(b) as anticipated by United States Patent No. 5,394,963, issued to Deane et al. in 1995. Claim 6 was rejected under 35 U.S.C. § 103 as unpatentable over Deane et al. Some claims were also rejected based upon the combination of Deane et al. with United States Patent No. 5,954, 166, issued to Maeda in 1999. In view of the amendments herein, it is appropriate to address the rejections together.

Deane et al. describes a hydraulic braking assembly of the type wherein force is applied to a caliper by a piston actuated by hydraulic fluid, col. 2, lines 59-64. Circulating coolant through a coolant passage 12 in the caliper body provides enhanced cooling, col. 2, line 67, to col. 4, line 1. The coolant in Deane et al., though, is provided for dissipating heat generated by the friction pad and rotor during braking. In contrast to a hydraulic system, Applicants' assembly is actuated by an electric motor. Moreover, Applicants' invention is directed to dissipating heat generated by the electric motor, and for this purpose, provides a heat pipe connected to the stator of the motor. Deane et al. relies upon circulating fluid, does not suggest a heat pipe, lacks an electric motor, and so does not contemplate the problem of heat generated by an electric brake motor. Thus, Deane et al. does not anticipate, or even suggest, Applicants' invention.

Claim 1 is directed to Applicants' brake assembly that includes an electric actuator motor. Electric assemblies are readily distinguished from the hydraulic system in Deane et al. that lacks an electric motor. The claim, as amended, calls for a heat pipe connected to the stator of the motor to dissipate heat generated by the motor. Deane et al. provides for circulating coolant and does not disclose a heat pipe. Moreover, nothing in Deane et al. contemplates dissipating heat from an electric motor. Thus, Deane et al. does not teach or suggest Applicants' brake assembly in claim 1.

Claims 8-9 are dependent upon claim 1, and are not taught by Deane et al. for the reasons set forth with regard to that claim, but include additional features preferred in the practice of Applicants' invention.

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Claim 10 is directed to the method of Applicants' invention. Like claim 1, claim 10 recites an electric motor for actuating the brake caliper assembly, and a heat pipe connected to the stator for dissipating heat generated by the electric motor. The system in Deane et al. lacks an electric motor, lacks a heat pipe, and is concerned only with dissipating heat produced by the friction pads, as opposed to a motor. Thus, Deane et al. does not teach or suggest Applicants' method in claim 10, or in claim 13 dependent thereon.

Maeda describes a hydraulic brake system that includes circulating brake fluid through a hydraulic cylinder in order to cool the fluid, col. 1, beginning at line 49. Maeda does not show an electric brake, or a heat pipe. Nor does Maeda address the problem of cooling an electric motor used to actuate a brake. Thus, Maeda suffers from the same deficiencies as Deane et al., and even when read with Deane et al., cannot point the practitioner to an electric brake system with a heat pipe to cool the electric motor, as in Applicants' invention.

Accordingly, it is respectfully requested that the rejection of the claims based upon Deane et al., either alone or in combination with Maeda, be reconsidered and withdrawn, and that the claims be allowed.

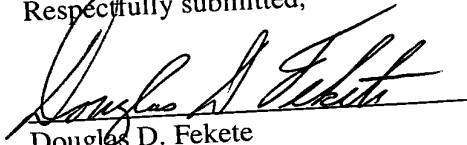
Conclusion

It is believed, in view of the amendments and remarks herein, that all grounds of rejection of the claims have been addressed and overcome, and that all claims are in condition for allowance. If it would further prosecution of the application, the Examiner is urged to contact the undersigned at the phone number provided.

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The Commissioner is hereby authorized to charge any fees associated with this communication to Deposit Account No. 50-0831.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Douglas D. Fekete", written over a horizontal line.

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